

3/PRTS

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An Electronic Information Item Selection for Trade and

Traded Item Control Delivery System

## FIELD OF THE INVENTION

The field of this invention relates to an electronic information item selection for trade and the traded item control delivery system, more particularly, it relates to a system that select, map, group, package, label and price media/television information items by time and content; a system of classifying, indexing, listing, searching and purchasing; as well as a control system for subscriber's secret key issuance, submission and authorization management, encryption for transmission, decryption for delivery and display.

## BACKGROUND OF THE INVENTION

US Patent 6028599 and 6341195 described an electronic program guide and its data base system; US Patent 6088722 described a personalized TV program selection system. Although these patents relate to electronic program guide and program selection systems, the purpose of those system are all for watching pre-selected and recorded program at later time, while never touch the subject of pre-select program for-not-use at specified time frame, but for preparing them into new time-tagged information items combination (hereafter refers to as dealpack) to send out for trade; US Patent 6058417 described a subscriber to subscriber electronic trading system on the internet, US Patent 6226675 described a corporate group to corporate group electronic online trading system. These systems are all set up for conventional physical goods trading, there is not yet a real or delayed or relayed time trading system for dealpacks' trade, such as TV programs, etc., media and information products.

Currently, electronic information (such as TV programs) items are provided by information content providers to information content network operators, who assemble the information content by channels and sell to subscribers on a monthly subscription basis. A content provider can sell its own content to many electronic information content network operators; an information content network operator can have its own mass subscriber base in a region, but content providers in most cases do not have real time supply relationship with operators' subscribers; network operator due to limitation of territory, only provide monthly service to its subscribers within its own network reached area; while subscribers pay the monthly

subscription fee, if the subscribed content (such as TV programs) is composed of several hundred channels, and in certain time frame (such as several days or certain day) the subscriber only use few contents (such as only watch several or tens of channels), the contents for the rest of the time (or rest of channels) are wasted. In other case, due to the internet technology development, if a content provider provide content directly to world wide subscribers via internet by the method of streaming SVOD (Subscription Video on Demand), though the quality is still in question, it breaks the area limitation of regional network's operation and some even bypass the network operation; similarly, a satellite direct broadcast network operator also is not restricted by terrestrial limitation. Both SVOD provider and direct satellite TV operator all encounter the limitation of various nations' government administration policy and media import and export control as well as content usage when their content deliver to these controlled area. Since one subscriber can only use one or several channels of media at time, while s/he owns the access right to the content operator's authorized media pool, which may contains hundreds or thousands of titles or channels of information or media; if the subscriber only use certain number of titles or channels of media in certain time, the rest of the title or media within or beyond the specified time shall be idle or wasted.

#### SUMMARY OF THE INVENTION

The objective of this invention is to provide a solution that will enable the electronic information content providers in the same area or different areas to trade its content in real or delayed or relayed time with content providers in other areas via their corresponding electronic information content network operators of their respective areas or directly through a trading network exchange center and deliver the content in a secured way. In order to realize the objective of the invention, this invention provide a system for electronic information item selection and trade as well as traded items, the dealpacks' control delivery. In one preferred embodiment of the invention, it includes a trading network center controlled device, such as client side TV set-top box and/or handheld PC/PDA or server side cable head-end, telecom node or computer hub, which download/upgrade electronic program item selection software mean, that can conduct electronic information items' selection by specified time frame and content, then map and group for-not-use items in accordance with pre-defined grid/ metrics, package, label, price them into dealpacks by pack-engine and list them out for real, delayed, relayed time trading and control delivery; and also comprises a network center controlled system for dealpack

indexing, listing, searching, trading, charging and billing as well as its encryption for transmission and decryption for delivery and display.

The above said software mean for electronic information item (such as TV programs) selection and packaging out for trading include an interactive electronic program selection guide. Such selection guide (could be an electronic program guide or EPG) could be interactively operated via a control device, such as set-top box and/or handheld device, that rolling display the listing/guide on TV/PC or via internet web pages directly or through internet channel. Subscribers select items via selection guide (such as EPG), the selected item could be time frame or time frame group, or item (such as program channel/title or channel/title combination), which are listed by pre-defined format, such as time along horizontal axis and items (such as channels/title or channels/titles combination) along vertical axis. When selecting items, subscriber can press keys pad (such as computer or phone), buttons on remote control unit, mouse or touch panel, or use touch pen to select some items as for-use, others as for-not-use (or for rent, for trade, for lease or for sale, etc.) in a specified time frame. Also subscribers can select to further display some label information (such as program briefing, author, publishing date etc.). Once those for-not-use items being determined, shall be immediately mapped into a pre-defined grid/metrics for regrouping and pricing by a dealpack pack-engine on the server side, they then will be put into trading status. This status shall be the authorization from the subscribers to the content operators to send those time-tagged for-not-use items' labeling data into regional trading database server, which is linked with the network center trading database exchange server and updated in real time to enable internal (among operator's own subscribers) or external (with subscribers of other network operators) trading.

The above mentioned network center online listing and content search /purchase trading system include regional log-on servers which are linked with the network center's servers. Those local servers can provide localized web interface for log-on by local operator and its subscribers, classified listing area on the internet or cable network for dealpacks, search, select and purchase area by key words, class and operators names for registered log-on local or related other regions' subscribers. The trading network center operator is in charge of the administration and operation of the trading database and servers, including register content operators and their subscribers' log-on authorization, online search system maintenance, trading settlement secret key issuance/release, and the management of the drop-in subscribers' control device (such as set-top box or network card) sales and their log-on authorization. Once the content network operator

registered its subscribers on to the trading network, can then link the time-tagged for-not-use trading dealpack database server to the trading network center's trading database exchange servers for listing out. Operator's subscribers and drop-in subscribers can then search the wanted dealpacks to purchase. For one preferred embodiment of the invention of TV program selection and purchasing, the search result could be list and price of the dealpacks, purchasing and supply method, etc.. If click certain dealpack, it can further display its labeling data, such as program titles, authors, directors, main actor/ess, briefing of the programs, publishing dates, pictures, previews and time for play, etc.. Once purchased, the center can use debt (settle account with operators by month), or use credit card/bank card as payment tool to close deal online. Once paid, purchaser shall be given a secret key, which could be administered by the trading network center on behalf of the purchaser to deliver the dealpack to the purchaser by scheduled time, or the secret key could be submitted by the purchaser him/herself via internet, cable or wirelessly to activate the dealpack delivery and display.

The secret key for the dealpack mentioned above is generated by a method of assembling the selling-subscriber's key, time frame identifier and identifier of the dealpack as well as verifier of payment for the dealpack.

The above mentioned secret key authentication, dealpack encryption transmission, gateway decryption, release for delivery and display system include the dealpack's encryption transmission, decryption for delivery and display control device and method. The said control devices is composed of set-top box type device, network card, network gateway and authorization card, dealpack pack-engine, the soft secret key, etc.; they operate together with the trading network's subscriber administration, network administration and billing system to provide the purchased dealpack encryption and decryption chain and delivery conduit to purchasers. The said method include steps of: download the EPG software mean; select for-use items and confirm the for-not-use items; send the for-not-use items to dealpack pack-engine for packaging, pricing and sending out to trading database server for listing; purchaser search and purchase the secret key for selected dealpacks; network administrator control and authenticate the secret key, encrypt and transmit the dealpack; same network subscribers trade with each other via network center to verify secret key and issue pass to let control device, such as set-top box/network card, release and deliver the dealpack, while different network subscribers trade each other via network center/gateway and set-top box together to verify secret key and issue pass to deliver the dealpack.

The objective and characteristics of the invention will become apparent from the following drawings and the detailed description.

#### BRIEF DESCRIPTION OF THE DRAWINGS

Figure 1 is the overall flow chart of the information item selection and packaging into dealpack for listing on the trading network.

Figure 2 is the overall block diagram of dealpack trading and delivery system.

Figure 3 is the process block diagram of the dealpack search, selection, purchase and receiving by a subscriber.

Figure 4 is the block diagram of dealpack secret key assembling and generating method

#### DETAILED DESCRIPTION

A preferred embodiment of the present invention is disclosed in the flow chart/block diagram as illustrated in figure 1. Subscribers first select the program wanted to watch. It can start from classification index 100a, use hand held control unit to select the items interested 111, then select from the EPG 100 the wanted channels 110 and its code or name 130. If want to further understand the program, subscriber can select the program 131, then a window 132 will open and illustrate related information. Subscriber can further select time frame or time frame group 188 based on the selected channel combination 140, including to input/select the starting time and date 151 and ending time and date 152, then confirm with 160. Once confirmed, under the account number 171 of the subscriber, dealpack pack-engine 180PE will put all the rest of channels/programs 170 into pre-defined grid/matrics 180 to pricing 185 in accordance with channels 183 and time-tag 188 and show time 184 as well as dealpack ID 187, class code 189. With confirmation for trade 186, dealpacks 187 will automatically be sent to the regional trading network database server 190 linking network center trading exchange server 200 to list.

As illustrated by Figure 2, Figure 3 and Figure 4, subscriber shall select dealpack for watch. First, content operator A and B register and log-on to the trading network 300, the subscribers of this content operators shall then automatically registered on trading network 300. In the mean time, trading network operator will link the dealpack database server 190 to trading network center exchange server 200, and timely upgrade 301 with it. Network A operator 190a (or network B operator 190b, trading network operator 200) and their subscribers A1 (or B1, or

drop in subscribers 1) shall be connected into trading network server 240/200 via computer 241 (or 222, 201) or subscriber A2 (or B2, or drop in subscriber 2) via television 212 ( or 221, 202 ). Dealpack label data can be searched/listed 321 via key word, indexed by classification or name of the content operators, subscriber can accordingly search and purchase the dealpack 310, confirm with 320, close deal and settle account 321; payment 320 could be settled on a monthly basis via registered content operator's A or B's account; or if by credit card or bank card, settled by credit or cash 331. Once paid, trading network operator 200 shall issue/release 330 secret key 403 to subscriber 221, or to trading network operator 200 itself to administered the secret key 403 and activate timely 341 for subscriber 221. Once the secret key 403 submitted 351, the system shall verify and issue pass 360. The secret key 403 could be submitted 351 via wire, cable, internet or wirelessly. Secret key 403 is generated from selling-subscriber's key plus purchased dealpack identifier 187 and time-tag 188 as well as payment settlement verifier 330. For same network subscribers trading, the key 403 shall be verified by trading network center 200 and issue pass through set-top box/network card, while subscribers from different network trading, the key shall be verified by network gateway 231/232 and set-top box to issue pass 361.

It is to be understood that the above preferred embodiment of the invention is only illustrated the key concept and composition of this invention, many variations and modification can be made based on the accent of the above embodiment, which will be apparent to one skilled in the art, that are also within the spirit and scope of the invention as set forth in the claims below.

**CLAIMS**

What is Claimed is:

1. A system of electronic information item selection for trade and the traded item

control delivery, the system include:

an electronic information item selection software mean, which can be downloaded and upgraded on control and operating devices, such as client side TV set-top box type and remote handheld PC or PDA type device, and/or server side cable head-end, telecom node or computer hub;

a reorganizing and transforming processor or call it pack-engine to process the for trade electronic information items which are items not being selected and being confirmed for-not-use by content subscriber using the said selection software mean;

the for trade electronic information items or call it dealpacks, are generated by pack-engine from unselected or for-not-use items via a process of mapping, regrouping, packaging, labeling and pricing; with the label data being sent out for listing online, the dealpack will be control delivered in real, delayed or relayed time; and

gateways set on the electronic information item trading network's key nodes to control said dealpack path and filter its content.

a method for secret key issuance and management that issue the secret key to dealpack purchasing subscriber and manage the same and/or different networks subscribers' trade and delivery of the traded dealpack.

- 2 The electronic information item (such as TV Program) selection software mean of claim 1 include an interactive selection guide (such as EPG), which is displayed by a list on television or computer operated display device directly or via internet web interface and being interactively operated to allow subscriber to use the selection guide to select items (such as TV or video

programs) which could be time frame or time frame group, or content ( such as channel or movie title or time and content combination), and could also be listed out in pre-defined format, such as horizontal as time axis and content (such as channel or title combination) as vertical axis; also allow subscriber to select items by pressing key (such as computers or phones') pad, pressing buttons of remote control unit or using mouse, touch panel or touch pen, even voice to put some items as for-use and other (unselected) items as for-not-use (or for trade, for rent, for lease, etc.) in a specified time frame or session.

3. The unselected content or for-not-use electronic information items in specified time frame or session of claim 1, once confirmed, shall be mapped immediately by pack-engine through pre-defined grid/matrics for packaging, labeling and pricing into serious of item groups or virtual media albums, the dealpacks, in accordance with pre-defined criteria, such as dealpack ID, class code, title label data and price, under the subscriber's account number; and the dealpack label data shall be sent into trading database connected in real time with trading network center for listing.

4. The secret key issuance and management method of claim 1, include:

issuing of a secret key for dealpack once the purchase of the dealpack is done and paid, wherein the secret key is generated by an algorithm of assembling the said dealpack selling-subscriber's key with the dealpack's time-tag that define the time frame or session of the said dealpack, the identifier of the said dealpack and the verifier of payment for the said dealpack;

submitting the said secret key via internet, cable or wirelessly;

administering the issuance and submission of the said secret key by the trading network center on behalf of the subscribers or by subscriber themselves

encrypting-transmit and decrypting-deliver the said dealpack to the said subscriber in the specified time frame or session once the said secret key submitted



5. A method to generate the dealpack and said dealpack label data, which include steps:

selecting the time frame or session wherein the content shall be used, or

selecting the wanted electronic information items for-use at specified time frame or session, using the above mentioned selection software mean;

confirming the unselected time frame or session wherein the content shall not be used, or the for-not-use electronic information items at the said specified time frame to process by the said pack-engine;

processing the unselected content or for-not-use electronic information items by pack-engine through mapping, regrouping, packaging, labeling and pricing into dealpack;

sending dealpack label data to trading database server for listing and trading.

6. The secret key issuance and management method of claim 5, include:

issuing of a secret key for dealpack once the purchase of the dealpack is done and paid, wherein the secret key is generated by an algorithm of assembling the said dealpack selling-subscriber's key with the dealpack's time-tag that define the time frame or session of the said dealpack, the identifier of the said dealpack and the verifier of payment for the said dealpack;

submitting the said secret key via internet, cable or wirelessly;

administering the issuance and submission of the said secret key by the trading network center on behalf of the subscribers or by subscriber themselves

encrypting-transmit and decrypting-deliver the said dealpack to the said subscriber in the specified time frame or session once the said secret key submitted.

7. A system means and method for dealpack control delivery, which include:

control devices comprise client side TV set-top box, remote handheld PC or PDA type device, authorization card, computer media network card, software mean for item selection and management, secret key, and/or server side cable head-end, telecom pop/node or computer hub,

gateway, trading database server, etc., those together operate with the trading network center and its charging/billing system to provide encryption transmission and decryption delivery chain conduit to deliver the dealpack;

wherein the method include steps of:

using downloaded selection software mean via control devices to select items for packaging and pricing, and sending out the packaged dealpack to listing;

searching and purchasing the dealpack's secret key,

verifying the key by network administration center and encrypting dealpack,

trading among same network subscribers via trading network to verify secret key and issue pass through set-top box type device or network card, head-end telecom node, or computer hub, while subscribers from different networks trading and verifying secret key via trading network gateway and set-top box type device or network card, head-end telecom node, or computer hub together to issue pass for dealpack delivery;

delivering encrypted dealpack via cable, satellite, telecom or computer network to purchasing subscriber and decrypt the dealpack to display at the subscriber's client device;

displaying multi-channel streaming media dealpack by tune in channels individually or several at time in the case of transmission and display streaming media via computer network, such as internet.

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization  
International Bureau



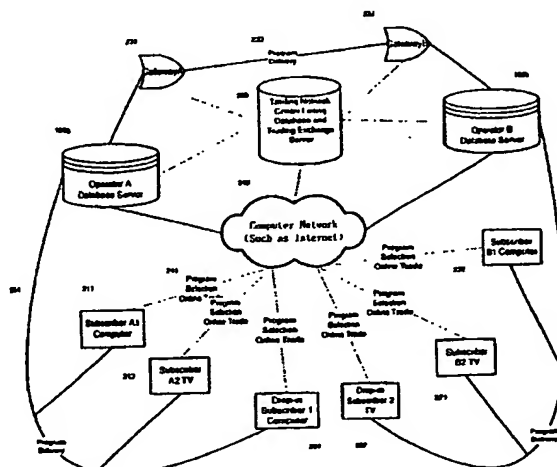
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(10) International Publication Number  
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- (51) International Patent Classification<sup>7</sup>: H04N 7/16 (74) Agent: MCCABE, Mark C.; Blakely, Sokoloff, Taylor & Zafman LLP, 12400 Wilshire Boulevard, 7th Floor, Los Angeles, CA 90025 (US).
- (21) International Application Number: PCT/US03/11320
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- (26) Publication Language: English
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- (71) Applicant and  
(72) Inventor: HUO, Shuya [US/US]; 737 San Bruno Avenue #1, Brisbane, CA 94005 (US).
- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: AN ELECTRONIC INFORMATION ITEM SELECTION FOR TRADE AND TRADED ITEM CONTROL DELIVERY SYSTEM



(57) Abstract: The objective of this invention is to provide a solution that enable real, delayed or relayed time trade and delivery of time-tagged electronic information items from/among same or different regions' information content providers (190a, 190b) and/or their subscribers (201, 202, 211, 212, 221, 222), or via their corresponding region's information content network operators and their subscribers (201, 202, 211, 212, 221, 222). In order to realize the objective, this invention provide a system to select wanted information items and package the unselected or for-not-use information items in specified time frame by mapping and grouping via a grid/matrics to packaging, labeling and pricing the items into for-trade-items or dealpacks and register them into trading database (200); a system for dealpack listing, online searching and purchasing; and dealpack's secret key submitting, verifying, encrypting transmission and decrypting delivery.

WO 03/090464 A1

FIG. 1

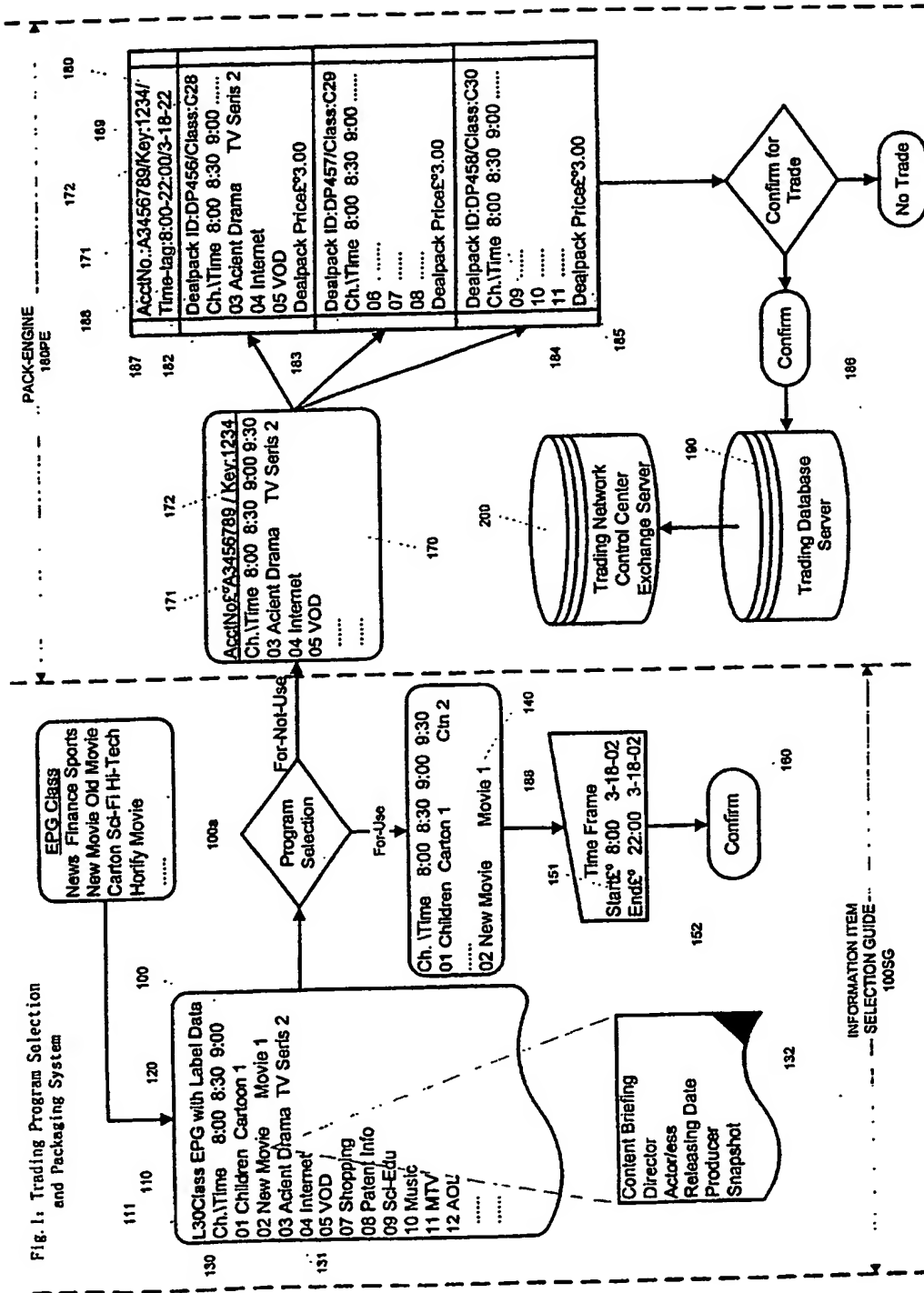


FIG. 2

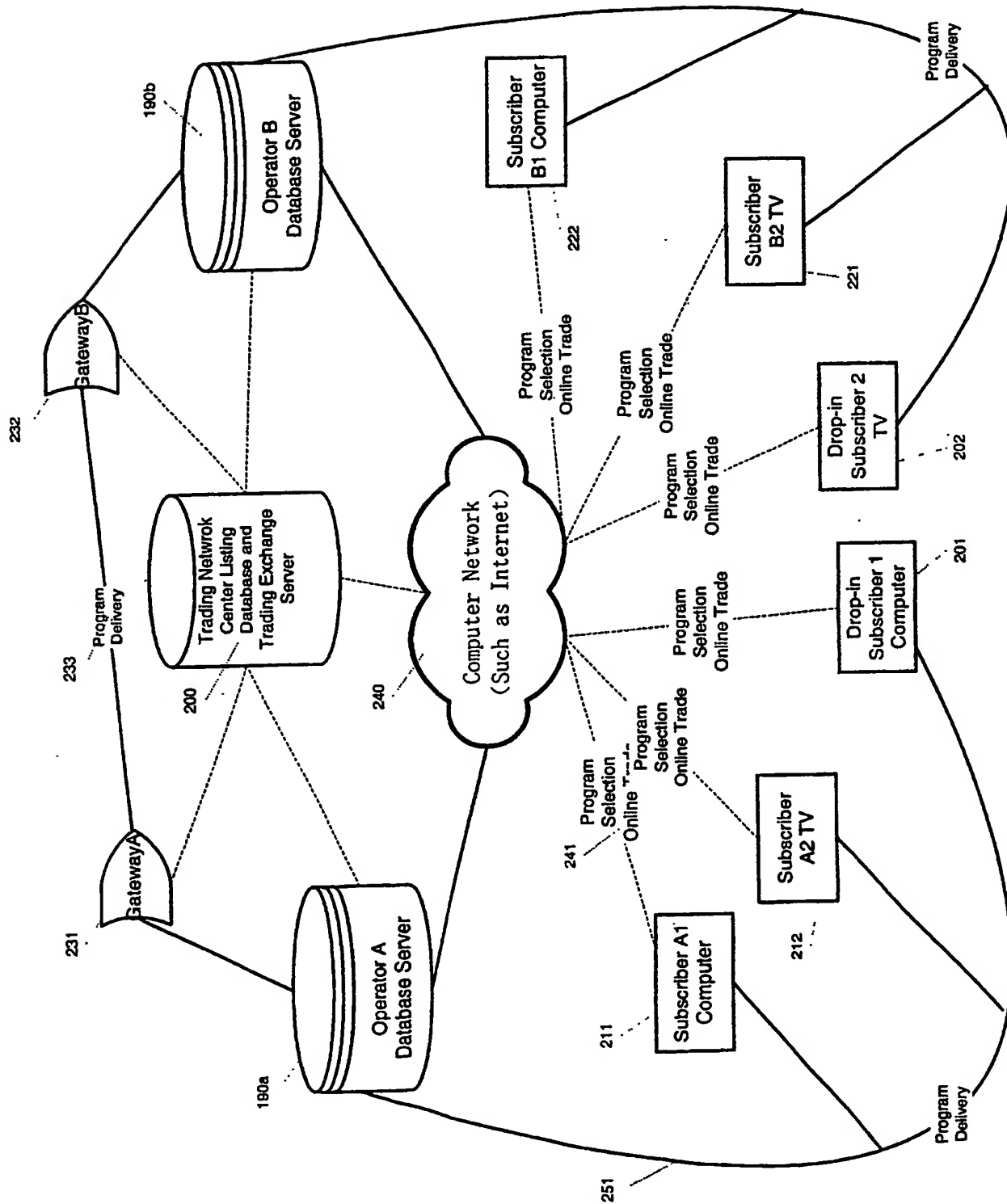
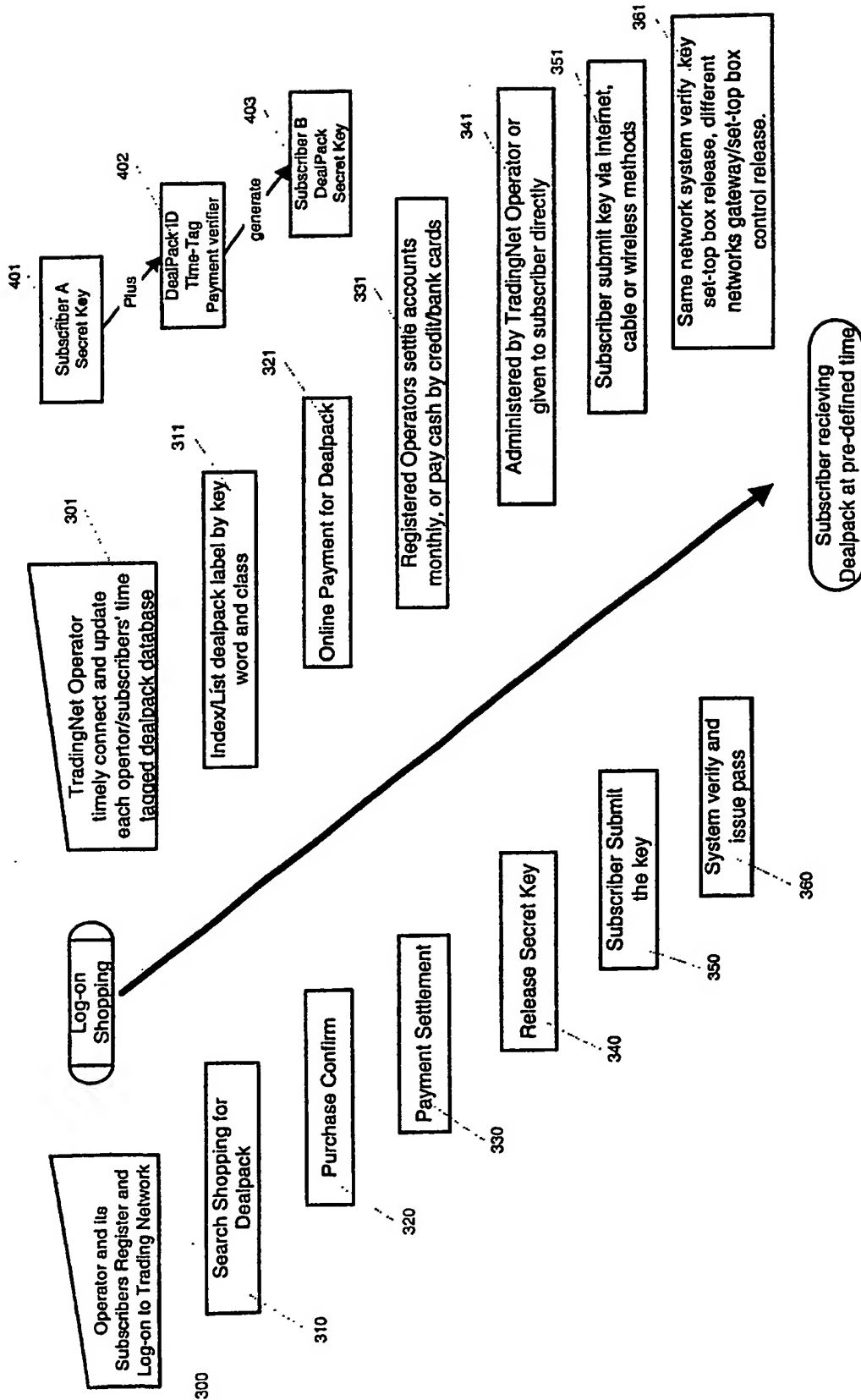


Fig. 4:



## PATENT COOPERATION TREATY

From the  
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

To:  
TAREK N. FAHMI  
BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP  
12400 WILSHIRE BOULEVARD  
7TH FLOOR  
LOS ANGELES, CA 90025

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07 SEP 2004

Applicant's or agent's file reference

BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP  
LOS ANGELES

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IMPORTANT NOTIFICATION

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16 April 2002 (16.04.2002)

Applicant

HUO, SHUYA

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1. The applicant is hereby notified that this International Preliminary Examining Authority transmits herewith the international preliminary examination report and its annexes, if any, established on the international application.
2. A copy of the report and its annexes, if any, is being transmitted to the International Bureau for communication to all the elected Offices.
3. Where required by any of the elected Offices, the International Bureau will prepare an English translation of the report (but not of any annexes) and will transmit such translation to those Offices.
4. **REMINDER**

The applicant must enter the national phase before each elected Office by performing certain acts (filing translations and paying national fees) within 30 months from the priority date (or later in some Offices)(Article 39(1))(see also the reminder sent by the International Bureau with Form PCT/IB/301).

Where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report. It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned.

For further details on the applicable time limits and requirements of the elected Offices, see Volume II of the PCT Applicant's Guide.

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Docketing Department

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Facsimile No. (703) 305-3230

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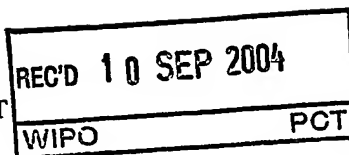
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# PATENT COOPERATION TREATY

## PCT

### INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)



Applicant's or agent's file reference  6602.P001PCT	<b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No.  PCT/US03/11320	International filing date (day/month/year)  14 April 2003 (14.04.2003)	Priority date (day/month/year)  16 April 2002 (16.04.2002)
International Patent Classification (IPC) or national classification and IPC  IPC(7): H04N 7/16 and US Cl.: 725/2, 5, 87		
Applicant  HUO, SHUYA		
<p>1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of <u>3</u> sheets, including this cover sheet.</p> <p><input type="checkbox"/> This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).</p> <p>These annexes consist of a total of <u>   </u> sheets.</p>		
<p>3. This report contains indications relating to the following items:</p> <ul style="list-style-type: none"> <li>I <input checked="" type="checkbox"/> Basis of the report</li> <li>II <input type="checkbox"/> Priority</li> <li>III <input type="checkbox"/> Non-establishment of report with regard to novelty, inventive step and industrial applicability</li> <li>IV <input type="checkbox"/> Lack of unity of invention</li> <li>V <input checked="" type="checkbox"/> Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</li> <li>VI <input type="checkbox"/> Certain documents cited</li> <li>VII <input type="checkbox"/> Certain defects in the international application</li> <li>VIII <input type="checkbox"/> Certain observations on the international application</li> </ul>		
Date of submission of the demand  12 November 2003 (12.11.2003)	Date of completion of this report  06 August 2004 (06.08.2004)	
Name and mailing address of the IPEA/US Mail Stop PCT, Attn: IPEA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (703) 305-3230	Authorized officer <i>Michelle R. Gasser</i> <i>for</i> AN MENG-AI Telephone No. (703) 305-3665	

Form PCT/IPEA/409 (cover sheet)(July 1998)



# INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/US03/11320

## I. Basis of the report

### 1. With regard to the elements of the international application:\*

- ☒ the international application as originally filed.
- ☒ the description:  
 pages 1-6 as originally filed  
 pages NONE filed with the demand  
 pages NONE filed with the letter of \_\_\_\_\_.
- ☒ the claims:  
 pages 7-10 as originally filed  
 pages NONE as amended (together with any statement) under Article 19  
 pages NONE filed with the demand  
 pages NONE filed with the letter of \_\_\_\_\_.
- ☒ the drawings:  
 pages 1-3 as originally filed  
 pages NONE filed with the demand  
 pages NONE filed with the letter of \_\_\_\_\_.
- ☐ the sequence listing part of the description:  
 pages NONE as originally filed  
 pages NONE filed with the demand  
 pages NONE filed with the letter of \_\_\_\_\_.

### 2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item. These elements were available or furnished to this Authority in the following language \_\_\_\_\_ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).

### 3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in printed form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

### 4. ☒ The amendments have resulted in the cancellation of:

- ☒ the description, pages none
- ☒ the claims, Nos. none
- ☒ the drawings, sheets/fig none

### 5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).\*\*

\* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).

\*\* Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

# INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.  
PCT/US03/11320

## V. Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

### 1. STATEMENT

Novelty (N)	Claims <u>1-7</u>	YES
	Claims <u>NONE</u>	NO
Inventive Step (IS)	Claims <u>1-7</u>	YES
	Claims <u>NONE</u>	NO
Industrial Applicability (IA)	Claims <u>1-7</u>	YES
	Claims <u>NONE</u>	NO

### 2. CITATIONS AND EXPLANATIONS

Claims 1-7 meet the criteria set out in PCT Article 33(2)-(3), because the prior art does not teach or fairly suggest a system of electronic information item selection for trade and the traded item control delivery, including: an electronic information item selection software mean, which can be downloaded and upgraded on control and operating devices, such as client side TV set-top box type and remote handheld PC or PDA type device, and/or server side cable head-end, telecom node or computer hub; a reorganizing and transforming processor or call it pack-engine to process the for trade electronic information items which are items not being selected and being confirmed for-not-use by content subscriber using the said selection software mean; the for trade electronic information items or call it dealpacks, are generated by pack-engine from unselected or for-not-use items via a process of mapping, regrouping, packaging, labeling and pricing; with the label data being sent out for listing online, the dealpack will be control delivered in real, delayed or relayed time; and gateways set on the electronic information item trading network's key nodes to control said dealpack path and filter its content. a method for secret key issuance and management that issue the secret key to dealpack purchasing subscriber and manage the same and/or different networks subscribers' trade and delivery of the traded dealpack.

# INTERNATIONAL SEARCH REPORT

International application No.

PCT/US03/11320

## A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : H04N 7/16

US CL : 725/2, 5, 87

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 725/2, 5, 87

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5,592,551 A (LETT et al.) 07 January 1997 (07.01.1997), the whole document.	1-7
A	US 5,901,339 A (SAITO) 04 May 1999 (04.05.1999), the whole document.	1-7
A, P	US 6,446, 045 B1 (STONE et al.) 03 September 2002 (03.09.2002), the whole document.	1-7
A, P	US 6,546,555 B1 (HJELSVOLD et al.) 08 April 2003 (08.04.2003), the whole document.	1-7

☐

Further documents are listed in the continuation of Box C.

☐

See patent family annex.

\* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T"

later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X"

document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y"

document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&"

document member of the same patent family

Date of the actual completion of the international search

10 July 2003 (10.07.2003)

Date of mailing of the international search report

30 JUL 2003

Name and mailing address of the ISA/US

Mail Stop PCT, Attn: ISA/US

Commissioner for Patents

P.O. Box 1450

Alexandria, Virginia 22313-1450

Facsimile No. (703)305-3230

Authorized officer

JOHN FOLLANSBEE

Telephone No. 703 305-3665

NOV 10 2003 From the INTERNATIONAL BUREAU

TNF

**PCT**

BLAKELY, SOKOLOFF TAYLOR & ZAFMAN LLP  
LOS ANGELES

To:

MCCABE, Mark C.

Blakely, Sokoloff, Taylor & Zafman LLP

12400 Wilshire Boulevard

Floor

Los Angeles, CA 90025

UNITED STATES OF AMERICA

NO DOCKETING REQUIRED

AD

NOTICE INFORMING THE APPLICANT OF THE  
COMMUNICATION OF THE INTERNATIONAL  
APPLICATION TO THE DESIGNATED OFFICES

(PCT Rule 47.1(c), first sentence)

**ENTERED**

NOV 13 2003

**STATUS** DB-LA

Date of mailing (day/month/year)  
23 October 2003 (23.10.03)

Applicant's or agent's file reference  
6602.P001PCT

**IMPORTANT NOTICE**

International application No.  
PCT/US03/11320

International filing date (day/month/year)  
14 April 2003 (14.04.03)

Priority date (day/month/year)  
16 April 2002 (16.04.02)

NOV 14 2003

Applicant

HUO, Shuya

AF/E/E/P

- Notice is hereby given that the International Bureau has communicated, as provided in Article 20, the international application to the following designated Offices on the date indicated above as the date of mailing of this notice:

US

In accordance with Rule 47.1(c), third sentence, those Offices will accept the present notice as conclusive evidence that the communication of the international application has duly taken place on the date of mailing indicated above and no copy of the international application is required to be furnished by the applicant to the designated Office(s).

- The following designated Offices have waived the requirement for such a communication at this time:

EP

The communication will be made to those Offices only upon their request. Furthermore, those Offices do not require the applicant to furnish a copy of the international application (Rule 49.1(a-bis)).

- Enclosed with this notice is a copy of the international application as published by the International Bureau on 30 October 2003 (30.10.03) under No. 03/090464

- TIME LIMITS for filing a demand for international preliminary examination and for entry into the national phase**

The applicable time limit for entering the national phase will, subject to what is said in the following paragraph, be 30 MONTHS from the priority date, not only in respect of any elected Office if a demand for international preliminary examination is filed before the expiration of 19 months from the priority date, but also in respect of any designated Office, in the absence of filing of such demand, where Article 22(1) as modified with effect from 1 April 2002 applies in respect of that designated Office. For further details, see *PCT Gazette* No. 44/2001 of 1 November 2001, pages 19926, 19932 and 19934, as well as the *PCT Newsletter*, October and November 2001 and February 2002 issues.

In practice, time limits other than the 30-month time limit will continue to apply, for various periods of time, in respect of certain designated or elected Offices. For regular updates on the applicable time limits (20, 21, 30 or 31 months, or other time limit), Office by Office, refer to the *PCT Gazette*, the *PCT Newsletter* and the *PCT Applicant's Guide*, Volume II, National Chapters, all available from WIPO's Internet site, at <http://www.wipo.int/pct/en/index.html>.

For filing a demand for international preliminary examination, see the *PCT Applicant's Guide*, Volume I/A, Chapter IX. Only an applicant who is a national or resident of a PCT Contracting State which is bound by Chapter II has the right to file a demand for international preliminary examination (at present, all PCT Contracting States are bound by Chapter II).

It is the applicant's sole responsibility to monitor all these time limits.

The International Bureau of WIPO  
34, chemin des Colombettes  
1211 Geneva 20, Switzerland

Authorized officer

Judith Zahra

Facsimile No. (41-22) 740.1435

Telephone No. (41-22) 338.91.11

**ENTERED**  
13/11/03

# INTERNATIONAL SEARCH REPORT

International application No.

PCT/US03/11320

<b>A. CLASSIFICATION OF SUBJECT MATTER</b> IPC(7) : H04N 7/16 US CL : 725/2, 5, 87 According to International Patent Classification (IPC) or to both national classification and IPC		
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<input type="checkbox"/> Further documents are listed in the continuation of Box C. <input type="checkbox"/> See patent family annex.		
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"A" document defining the general state of the art which is not considered to be of particular relevance	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention	
"E" earlier application or patent published on or after the international filing date	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone	
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art	
"O" document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family	
"P" document published prior to the international filing date but later than the priority date claimed		
Date of the actual completion of the international search	Date of mailing of the international search report	
10 July 2003 (10.07.2003)	30 JUL 2003	
Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (703)305-3230	Authorized officer <i>Jm</i> JOHN FOLLANSBEE Telephone No. 703 305-3665	